WHAT IS CLAIMED IS:

1. A seal assembly for a turbine comprising:

a turbine wheel having a plurality of wheelposts circumferentially spaced from one another about a periphery of said wheel defining a plurality of circumferentially spaced generally axially extending grooves, said wheel having a generally annular projection extending axially from a first face thereof interrupted by the grooves;

a spacer having an annular arm engaging said interrupted projection;

a plurality of turbine buckets each having an airfoil and a base, said bases being disposed in said grooves, each said base having an axial projection radially overlying and radially spaced from said arm;

an annular surface of said arm and axial faces of said wheelposts and said bucket bases radially inwardly of said projection defining an annular cavity; and

a seal disposed in said cavity and in sealing engagement with generally axially opposed wall portions of said arm and wall portions of said axial faces of said wheelposts and bucket bases in response to centrifugal forces on said seal upon rotation of the wheel, buckets and spacer.

2. An assembly according to claim 1 wherein the wall portions of said spacer arm extend radially outwardly and axially toward said wheel, said wall portions of said wheelposts and said bucket bases extending radially outwardly and axially away from said wheel.

3. An assembly according to claim 1 wherein said seal is formed of a material conformable to the shape of said cavity when in sealing engagement with the wall portions of said arm and wall portions of the axial faces of said bucket bases and the faces of said wheelposts.

4. An assembly according to claim 1 wherein said seal is formed of an inner metal core, a silica overbraid, a layer of metal foil and a metal outer braid.

5. An assembly according to claim 1 wherein each said bucket base has a dovetail configuration and each said groove has a generally complementary dovetail configuration.

6. An assembly according to claim 1 wherein the wall portions of said spacer arm extend radially outwardly and axially toward said wheel, said wall portions of said wheelposts and said bucket bases extending radially outwardly and axially away from said wheel; and wherein said seal is formed of a material conformable to the shape of said cavity when in sealing engagement with the wall portions of said arm and wall portions of the axial faces of said bucket bases and the faces of said wheelposts.

7. An assembly according to claim 6 wherein said seal is formed of an inner metal core, a silica overbraid, a layer of metal foil and a metal outer braid; said bucket base having a dovetail configuration and each said groove having a generally complementary dovetail configuration.

8. An assembly according to claim 1 wherein said wheelposts have hooks defining generally radially extending slots along a second axial face of said wheel opposite said first face, said bases having hooks defining generally radially extending slots along end faces thereof in axial registration with the wheelpost slots and an annular retaining ring disposed in said registering hooks to releasably retain the buckets in said grooves against generally axial displacement of the buckets in an aft direction relative to said wheel.

9. A seal assembly for a turbine comprising:

a turbine wheel having a plurality of wheelposts circumferentially spaced from one another about a periphery of said wheel defining a plurality of circumferentially spaced dovetail shaped grooves therebetween, said wheel having a plurality of projections circumferentially spaced from one another and extending axially from a face thereof, the spaces between said projections being in axial registration with said dovetail shaped grooves;

a spacer having an annular arm engaging said projections;

a plurality of turbine buckets, each having an airfoil and a dovetail, said bucket dovetails being disposed in said wheel dovetail shaped grooves, each said bucket dovetail having a projection extending axially from a first end face thereof and radially overlying and spaced radially outwardly of said arm;

an annular surface of said arm and axial faces of said wheelposts and said bucket dovetails radially inwardly of said projections defining an annular cavity; and

a seal disposed in said cavity and in sealing engagement with generally axially opposed wall portions of said arm and wall portions of said axial faces of said wheelposts and bucket dovetail end faces in response to centrifugal forces on said seal upon rotation of the wheel, buckets, and spacer.

10. An assembly according to claim 9 wherein the wall portions of said spacer arm extend radially outwardly and axially toward said wheel, said wall portions of said wheelposts and said bucket dovetails extending radially outwardly and axially away from said wheel.

11. An assembly according to claim 9 wherein said seal is formed of a material conformable to the shape of said cavity when in sealing engagement with the wall portions of said arm and wall portions of the axial end faces of said bucket dovetails and the faces of said wheelposts.

12. An assembly according to claim 9 wherein said seal is formed of an inner metal core, a silica overbraid, a layer of metal foil and a metal outer braid.

13. An assembly according to claim 9 wherein the wall portions of said spacer arm extend radially outwardly and axially toward said wheel, said wall portions of said wheelposts and said bucket bases extending radially outwardly and axially away from said wheel; said seal being formed of a material conformable to the shape of said cavity when in sealing engagement with the wall portions of said arm and wall portions of

the axial faces of said bucket bases and the faces of said wheelposts.

14. An assembly according to claim 9 wherein said wheelposts have hooks defining generally radially extending slots along a second axial face of said wheel opposite said first face, said dovetails having hooks defining generally radially extending slots along end faces thereof in axial registration with the wheelpost slots and an annular retaining ring disposed in said registering hooks to releasably retain the buckets in said grooves against generally axial displacement of the buckets in an aft direction relative to said wheel.